



**PAKISTAN TEACHER EDUCATION AND PROFESSIONAL DEVELOPMENT PROGRAM  
(PTEPDP)  
USAID Contract EEE-I-00-01-00010-00**

**PERFORMANCE GAP ANALYSIS AND TRAINING NEEDS ASSESSMENT OF  
TEACHER TRAINING INSTITUTIONS**



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Connecting People • Creating Change

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## Preface

The Academy for Educational Development (AED) Pakistan is currently implementing the Pakistan Teacher Education Professional Development Program (PTEPDP). The overall objective of PTEPDP is to enhance the professional skills of Pakistani teachers in the teaching of Mathematics, Science and English as a second language, and to promote leadership for managing change.

The program focuses on training and professional development of master trainers/educators from teacher training institutions from public sector at three US host universities, George Mason University, University of Montana and Oregon State University. Thus far we have trained 172 teacher educators from all over the country. A distinct feature of PTEPDP is its follow-on strategy to provide continuous support to the US returned teacher educators. The follow-on strategy involves a number of activities such as provincial experience sharing forums, inter/intra provincial exchange visits, subject based networking workshops, quarterly newsletter etc.

To assist the stakeholders in better understanding the structure, performance and needs of teacher education in the public sector, AED undertook an assessment exercise which involved a study on performance gap analysis, training need assessments, development of interventions and follow-up and assessment of training utilization. The study was conducted keeping in view the problems afflicting the education in Pakistan specifically in the quality of learning, competency level of both teachers and students. The study will provide an insight to support GoP and provinces in their efforts to improve the quality of basic education by improving teacher education in the country.

The TNA report presents an overview of existing situation of teacher training in the country. It provides comprehensive information on organizational and service structure in the teacher training institutions, courses provided and linkages among education institutions such as GECEs, PITEs and BoCEs. The report also draws some significant findings and recommendations that would assist in improving the standard and quality of teacher education in the country.

We thank our two consultants: **Sheikh Abul Quasim and Aziz Kabani** for undertaking this task and coming up with a comprehensive report. Finally we are thankful to the AED staff for coordinating and compiling the final version of the report. We are grateful to USAID for giving us the opportunity to conduct such a valuable study.

Iqbal Ali Jatoi  
Country Representative, AED Pakistan

## Acronyms

ACR	Annual Confidential Report
ADB	Annual Development Plan
AED	Academy for Educational Development
B.Ed	Bachelor of Education
BCEW	Bureau of Curriculum and Extension Wing
BISE	Board of Intermediate and Secondary Education
BoC	Bureau of Curriculum
CT	Certificate of Teaching
DCTE	Directorate of Curriculum and Teacher Education
DPI	Director Public Instruction
DSD	Department of Staff Development
DTC	Drawing Teachers Certificate
EDO	Executive District Officer
ESL	English as a Second Language
ESR	Education Sector Reform
ESRA	Education Sector Reform Assistance
GCE	Government College of Education
GCET	Government College of Elementary Teachers
GECE	Government Elementary College of Education
IED	Institute for Educational Development
IER	Institute of Education and Research
IT	Information Technology
KMC	Karachi Metropolitan Corporation
M.Ed	Master of Education
MSP	Middle School Project
NCHD	National Commission for Human Development
NWFP	North Western Frontier Province
OT	Oriental Teacher
PITE	Provincial Institute of Teacher Education
PTC	Primary Teachers Certificate
PTEPDP	Pakistan Teacher Education and Professional Development Program
REEC	Regional Education Extension Centre
SAP	Social Action Program
SEERP	Sindh Elementary Education Reform Program
SSC	Secondary School Certificate
TOs	Teaching Outposts
TOR	Terms of Reference
ToT	Trainer of Trainers
TRC	Teachers Resource Centre
TTI	Teacher Training Institution
TTP	Teacher Training Project
UCE	University College of Education
UGC	University Grants Commission
UoE	University of Education

## **Executive Summary**

The consultancy assignment of the Pakistan Teacher Education and Professional Development Program (PTEPDP) was aimed at Performance Gap Analysis and Training Needs Assessment (TNA) of Teacher Training Institutions in the public sector in the country. The TNA involved assessment of quality of education in teacher education institutions; efficiency level of teacher training institutions in delivering quality training; need for equipment and resources; relevance of curriculum to changing demands in education; and opportunities of professional development for teacher educators. (TORs at Annex 1)

The consultants visited 24 teacher education institutions in the country which included 12 institutions providing Primary Teaching Certificate PTC and Certificate of Teaching CT diploma courses, 3 institutions providing graduate and postgraduate level professional education, the Bureaus of Curriculum in Sindh, Balochistan and NWFP and the Department of Staff Development (DSD) in the Punjab, the four Provincial Institutes of Teacher Education (PITEs) and the University of Education (UoE) Punjab. (Annex 5)

Individual and group focused interviews were the main information gathering devices. A 142-item questionnaire was developed for this purpose (Annex 4). Information was gathered through interviews and meetings with principals and faculty of the institutions, the directors of the Bureaus of Curriculum (BoC) and the Provincial Institutes of Teacher Education, and the Department of Staff Development Punjab, the Vice Chancellor, University of Education Punjab and the Secretary Education, Government of Balochistan.

The study observed that in Pakistan although all teacher education institutions are provincially administered, each province has its unique organizational structure with different nomenclatures (Annex 6). Also there is diversity in the courses being offered in each province. The Teaching Resource Centers (TRCs) and the Teaching Outposts (TOs) are fresh initiatives that take the training to the workplace of the teacher but are not functional as yet. They need to be strengthened and properly monitored.

The study also brought out a number of concerns that need to be addressed to improve the overall status of teacher education in Pakistan. It was seen that there is an overlap in the roles and responsibilities of the BoCs and PITEs that needs to be removed. The relationship between BoCs, PITEs and the Teacher Training Institutions (TTIs) is of purely administrative nature. There is seldom any interaction among these institutions to share, discuss and address academic issues. There is no regular yearly budgetary allocation with the PITEs or the Bureaus for in-service training. Most courses are either funded by the government from funds obtained under aid projects e.g. Teacher Training Project (TTP) and Middle Schooling Project (MSP), or funded by donor agencies e.g. UNICEF and UNESCO.

There is no separate cadre of teacher educators, their positions are transferable that affects the quality of teacher training. A separate cadre of teacher educators is needed to protect and promote the efficiency of the trainers.

The duration of Primary Teachers Certificate (PTC), Certificate of Teaching (CT), Bachelor of Education (B.Ed) courses are all of one year which offers eleven or more subjects. Punjab has already stopped the PTC/CT courses with Diploma in Education. The Diploma has been introduced in Sindh and Balochistan as a pilot initiative to assess its efficacy. The curriculum for PTC, CT and B.Ed. published by the Curriculum Wing, Ministry of Education is detailed, the contents are modernized, practical work and assignments are emphasized. However, due to short duration of courses and inadequate content knowledge and pedagogy skills the curriculum is implemented in traditional teacher centered approaches that do not encourage enquiry and true learning. Lectures, note giving and dictation are common teaching styles practiced in teacher training institutions. Practical work, assignments and library study are neglected. Only 15% of course time is given to practice teaching.

The scarcity of relevant reading and reference materials also impede research based professional development. Course related materials need to be developed and locally available reference materials need to be identified. The curriculum needs to be implemented fully incorporating new concepts and skills in teacher education. The faculty needs training in content and pedagogy skills and use of IT resources in teaching and action research and specialized training in teaching of English as a Second Language (ESL), Science and Mathematics which have surfaced as key areas of special consideration.

The principals of the TTIs perform the job of administrators only. They do not monitor the performance of their teaching faculty nor do they initiate any measures to improve academic standards. There is no systematic Performance Appraisal System. The Annual Confidential Report (ACR) is the only inadequate tool applied to appraise performance of the faculty. Promotions to higher grades or higher posts are done on the basis of seniority alone. Merit has no role in promotions. The concept of feedback is missing to assess and improve the quality of certified teachers. The Principals rarely evaluate the performance and needs of the TTIs and assess the need and use of facilities provided. Most courses are not need based. There is no link between in-service courses and improvements in pupils' achievements as there is no evaluation and follow up mechanism. Principals of TTIs need training in academic-supervision, monitoring and quality control. Teams of expert educators are being constituted to conduct institutional performance evaluation of University Colleges of Education in Punjab. The National Educational Assessment System (NEAC) and the Provincial Educational Assessment Cells (PEAC) established by the Curriculum Wing under the ESR program can play a key role in assessing student achievement levels and providing a reliable indicator of teacher quality.

Most institutions have adequate buildings and accommodation but require maintenance. Science labs, libraries and IT rooms, although in place, are not adequately equipped in

many institutions. The classroom environment is not suitable for activity-based teaching. In some colleges the facilities provided in colleges are not being optimally utilized.

The Pakistan Teacher Education and Professional Development Program (PTEPDP), a US based training program for teacher educators, is an unparalleled effort to upgrade the professional level of teacher educators and teacher education in the country. The program is unique since it reaches out to teacher educators in remote areas such as FANA, FATA and rural areas in Balochistan, NWFP, Sindh and Punjab. The target areas of training are ESL, Science and Mathematics and Leadership Training for Administrators. The returnees have developed action plans to transfer their newly learnt skills among colleague teacher educators and teachers. The PTEPDP has plans for intensive follow up to sustain the change process initiated by the foreign trained faculty. The AED efforts to improve teacher education need to be supported at management and policy level.

The TNA findings recommend following key points to improve the current system of teacher education/training in the country. These recommendations will contribute in restructuring the organizational framework of the education system, in facilitating policy formulation and in improving quality of teacher education/training.

- Clearly define the functions and responsibilities of core teacher education institutions such as PITEs, BoCs, Directorate of Curriculum and Teacher Education (DCTE) and DSD so as to avoid replication and duplication of efforts and close collaboration between these institutions geared towards the improvement of both pre-service and in-service teacher education. Establish linkages between the provincial teacher education institutions particularly between the BoCs, PITEs and Universities.
- The diversity in structure of teacher education faculty also needs to be made uniform and separate cadre of teacher educators needs to be maintained and protected to ensure teacher educators are retained by avoiding unnecessary transfers.
- Incorporate state of the art content knowledge and pedagogy skills in teacher education courses relevant to the needs of the curriculum and based on ground realities.
- Produce quality textbooks and reference and supplementary materials and equip libraries with teaching learning materials that facilitate research and professional development.
- Considering existing condition of college buildings there is a need to repair/renovate all the college buildings that require immediate facelift.
- Introduce a regular appraisal system to assess the performance of teacher educators and introduce a system of Institutional Performance Evaluation.



- Linkages between the provincial teacher education institutions particularly between the BoCs, PITEs and universities needed to be established. Strengthen and support PITEs as apex institutions for innovation and research in teacher education.
- Improve the physical and resource environment of the classrooms that encourage group work and activity based learning.

# Performance Gap Analysis and Training Needs Assessment Consultancy Report

*“The quality of education is directly related to the quality of instruction in the classroom. The teacher is considered the most crucial factor in implementing all education reforms at the grassroots level. It is a fact that the academic qualifications, knowledge of the subject matter, competence and skills of teaching and the commitment of the teacher have effective impact on the teaching-learning process. Recognizing the deteriorating quality of education at various levels, efforts need to be intensified to accord adequate priority to the effectiveness of teacher education programs in the country”.*

*“The qualitative dimension of teacher education program has received only marginal attention resulting in mass production of teachers with shallow understanding of both the content and methodology of education”.*

(National Education Policy 1998-2010, p47)

## 1.0. Introduction

The Academy for Educational Development (AED) Pakistan is currently implementing the Pakistan Teacher Education Professional Development Program (PTEPDP). The overall objective of PTEPDP is to enhance the professional skills of Pakistan teacher educators in the teaching of Mathematics, Science and English as a second language, and to promote leadership for managing change. The larger objective of the program is to promote academic and cultural exchanges between Pakistan and U.S. teacher educational institutions to contribute to increased capacity of those institutions and engender good will between the people of Pakistan and the United States.

The program focuses on training and professional development of master trainers/educators from teacher training institutions from the public sector. Some school teachers as well as teacher trainers from private sectors, especially from non-profit sectors will have also been included in the program. The direct beneficiaries of PTEPDP will be the Pakistani educators enrolled in the program. The primary target groups will be teacher educators / master trainers / subject specialists / ToTs from government elementary teacher training colleges.

The outcomes realized through the implementation of this program are expected to be new skills, knowledge and attitudes sustained within the participating institutions leading to improved organizational performance through the adoption of relevant and advanced policies addressing educational and social development challenges. Participants on returning to their work sites will share new skills, knowledge and perceptions with colleagues, and influence outreach training services within Pakistan. Participants will form networking teams and linkages with other groups to mutually enhance capabilities, reinforce leadership potential and promote positive trends within the country. It is hoped that such activities will lead to professionalism in the field of teaching in Pakistan.

## **1.1. Specific Program Elements**

1. Certificate training in the U.S. in Mathematics, Science and Teaching of English as a Second Language and Leadership for Managing Change.
2. Institutional Participation
3. Faculty Exchanges
4. Post-training Support
5. Organizational needs assessment analyses and related technical assistance

## **2.0. Study**

A two member team of consultants were hired to conduct the TNA for a period of 30 days. (TORs at Annex 1) The specific tasks identified for the study are:

1. An overview of the existing situation of teacher training/education in the country.
2. Situational analysis of teacher training institutions in the public sector, especially Government Elementary Colleges of Education (GECEs), Provincial Institutes of Teacher Education (PITEs), Bureaus of Curriculum and Education Extension (BoCs), Federal College of Education (FCE) with reference to the following:
  - a) Organizational structure of teacher training.
  - b) Service structure in the teacher training institutions.
  - c) Certification for different teacher training courses in the country.
  - d) Linkages between GECEs, PITEs, BoCs with Teacher Resource Centers (TRCs) and Training Outposts (TOs)
3. Training needs of these institutions overall as well as with reference to PTEPD which is currently being implemented by AED which aims to improve the quality of teacher education in the country, especially in the teaching of English as a Second Language (ESL), Science and Mathematics.
4. Previous efforts aimed at training teachers in above subjects in these institutions and results of such efforts.
5. Current efficiency level of teacher training institutions in terms of quality of training or reasons for low quality teacher training, both pre and in-service being conducted in these institutions.
6. Status and utilization of Practice/Model/Lab schools associated with GECEs. Are these facilities being utilized as intended?
7. Availability of training/teaching material in these institutions.
8. Curricula for Mathematics, Science and ESL for pre-service and in-service teacher training and its relevance to current needs and demands of modern teaching.
9. Administrative aspects of institutions and training.
10. Financial conditions of teacher training institutions.
11. Avenues of professional development of teachers in these institutions.
12. Non-training related obstacles to training and learning.

## 2.1. Methodology

### 2.1.1. Interview Questionnaires

Individual and Group Focused Interviews were the main information gathering devices. (Samples at Annex 2 and 3) A 142-item questionnaire was developed for this purpose. Each item in the questionnaire is related to a particular specific task identified above. The category of respondents included:

- Principals of Training Institutions
- ESL, Science, and Math Faculty members
- Teacher Educators trained through AED
- Trainee Teachers
- PITE Directors and Faculty
- BoC
- DSD Director and Staff
- Secretary Education Balochistan and
- Vice Chancellor, University of Education, Punjab

(Questionnaire at annex 4)

### 2.1.2. Study Sample

A total of 24 Teacher Training Institutions were selected which included 12 institutions providing PTC and CT certificate courses, 3 institutions providing graduate and postgraduate level professional education, the Bureaus of Curriculum in Sindh, Balochistan and NWFP and the Department of Staff Development in the Punjab, the four Provincial Institutes of Teacher Education (PITES) and the University of Education Punjab. The consultants visited all the 24 institutions. (List of Institutions at Annex 5)

The table below shows the number of institutions visited in the provinces:

Province	GECEs /RITEs or UCEs		PITEs	BCEW, DCTE, DSD	University of Education	Total
	Male	Female				
Sindh	2	3	1	1	--	7
Balochistan	2	2	1	1	--	6
NWFP	1	2	1	1	--	5
Punjab	1	1	1	1	1	6
<b>Total</b>	<b>6</b>	<b>8</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>24</b>

A round of the premises was made in each institution to observe the buildings, classrooms, labs, libraries, auditorium, furniture, teaching-learning material and IT facilities.

The responses to the questionnaire items were noted in the questionnaire forms and in most cases, the conversation was recorded on cassettes with the consent of the respondents.

Since the questionnaire items were already clustered around the specific tasks, the analysis did not present any difficulties. The items were designed to yield more information on qualitative aspects rather than on collection of quantitative data. The study is therefore more illuminative and qualitative than quantitative.

### **3.0. An Overview of Teacher Education in Pakistan**

The organization, management and financing of teacher education in Pakistan present a diversity of interesting structural models. During the late sixties and early seventies, a series of changes took place in the organization, management and curricula for teacher education; the provincial Bureaus of Curriculum were established and the teacher training institutions offering PTC, CT and Oriental Teacher OT courses were upgraded to Colleges of Elementary Education. Almost a decade passed by when no significant change occurred, although a number of donor aided projects were initiated and implemented such as the Social Action Program SAP, Teacher Training Program (TTP), and the Science Education Project, but none of them affected the organizational set-up of teacher education in any major way.

After the 1990s significant changes took place in teacher education which resulted in the emergence of new institutions for pre-service and in-service education and in many cases a drastic re-organization of the structure of teacher education.

### **3.1. Diversity in Organization of Teacher Education Institutions in Provinces**

There is a diversity of teacher education structure in the country as each province has a different organizational and administrative set up of teacher training institutions. However what is common is the pre-service curriculum that they follow but with the varied understanding and expertise. The other common feature of teacher education is that it is largely provincially centralized as most of the institutions are working under Education departments, rather than districts government. (Organogram at annex 6)

#### **3.1.1. Sindh**

The Bureau of Curriculum and Extension Wing Sindh, (BC&EW) and the Provincial Institute of Teacher Education (PITE) are the major providers of both pre-service and in-service teacher education in the province. The Departments of Education in the Universities provide teacher education at graduate and postgraduate levels (B.Ed., M.Ed. and PhD) through their Institutes of Education and Research (IERs) and affiliated Colleges of Education.

All the Government Elementary Colleges of Education (GECEs), 23 in number, provide PTC, CT, OT and Drawing Teacher Certificate DTC certificate courses preparing teachers for primary level (I-V) and middle level (VI-VIII) classes. These GECEs are under the administrative, academic and financial control of the Bureau of Curriculum and Extension

Wing Sindh. The exams for the teacher education courses are conducted by the Boards of Intermediate and Secondary Education (BISE) which award the certificates. The Bureau of Curriculum also undertakes curriculum development in collaboration with the Curriculum Wing of the Federal Ministry of Education and collaborates with the Sindh Textbook Board in textbook development. Short in-service courses on special topics are held often through funding by donor agencies.

The PITE in Sindh after initial attempts at providing Diploma Model II and B.Ed. courses restricted itself to providing in-service training, materials development and research activities. For its in-service training programs, the PITE utilizes the services of the faculty of the Bureau's GECEs in addition to its own nucleus staff and also uses their premises for holding the workshops. As such there is collaboration between the Bureau and PITE in provision of in-service training. The bureau and PITE in Sindh are independent institutions both reporting to the Secretary Education and receiving their budgets from the Department of Education.

The Colleges of Education offering postgraduate courses in education (B.Ed, M.Ed) are affiliated with the Universities but are under the financial and administrative control of the Executive District Officer EDO College Education. The staff is the employees of the Department of Education, not of the Universities. The Universities are mainly examining and degree awarding bodies so far as teacher education is concerned and have some role in curriculum and syllabus prescriptions.

### **3.1.2. Balochistan**

The organization of teacher education in Balochistan is different from that in Sindh. The Bureau of Curriculum and the PITE are the major players but the PITE is not an independent institution as in Sindh. It is under the administrative and financial control of the Bureau.

The Bureau of Curriculum has the administrative, financial and academic control of 11 Government Elementary College of Education (GECE) — nomenclature different from Sindh — offering PTC and CT courses, 1 College of Education offering B.Ed. and also the PITE. The Bureau is also the examining and certification body for the PTC and CT courses offered by GECEs, a different arrangement from that of Sindh.

In addition to its pre-service responsibilities, the Balochistan Bureau of Curriculum also offers 10-15 days in-service training courses mostly through the support and often at the request of the funding agencies. The management related courses for Heads of Schools and school management cadres are held by the Bureau of Curriculum while the PITE usually conducts in-service courses for primary and middle level teachers. The Bureau fulfils its major responsibility of curriculum development only when the Curriculum Wing invites its participation.

The PITE Balochistan is responsible to the Bureau of Curriculum. The PITE engages in activities assigned to it from time to time by the Bureau. In the past it was engaged in the

Middle Schools Project (MSP), the Science Education Project and currently has assisted Education Sector Reform Assistance ESRA for its professional development program ongoing in four selected districts of Balochistan.

The PITE Balochistan also experimented with the Diploma in Education courses. These courses are being offered as a pilot initiative in some of the elementary teacher education colleges in Balochistan.

The PITE Balochistan, it is gathered has no regular funds allocation from the government for its major functions of in-service training and materials development.

### **3.1.3. NWFP**

The teacher education in NWFP is in a state of flux. Half of the 20 Regional Institutes of Teacher Education (RITES) providing PTC and CT courses were closed down few years back while classes were suspended in the rest 10 institutes for a period of 3 years beginning September 2002. The Bureau of Curriculum NWFP, renamed in 2001 as the Directorate of Curriculum and Teacher Education (DCTE) exercises administrative, financial and academic control over the 20 RITES, (10 closed down), 1 Government College of Physical Education and a Government Agro Technical Teachers Training Centre. Currently Regional Institutes of Teacher Education RITES have been assigned to conduct Diploma in Education as well as PTC/CT classes.

The PITE in NWFP is an independent institute working directly under the control of Secretary Schools and Literacy Department. For its in-service training programs, PITE uses the services of the faculty of Bureau, RITES and the teaching staff/management staff under the control of Director Schools and Literacy NWFP in addition to its own nucleus staff.

The graduate and postgraduate level teacher education is offered by three Institutes of Education and Research (IERs) as constituent institutions of Peshawar, Hazara and Gomal Universities.

### **3.1.4. Punjab**

The University of Education Punjab was established as recently as September 2002. A series of events led to the creation of the University.

Until 1974 the schools, offering PTC, CT, OT and other courses, were under the administrative, financial and academic control of the Director Public Instructions (DPI), Punjab. In 1959 the West Pakistan Education Extension Centre was established which had the major responsibility of organizing and conducting In-service Training. During 1972-74, after the dissolution of West Pakistan into provincial units, Regional Education Extension Centers (REECs) were established in each province. The Education Extension Centre Punjab took over the additional responsibilities of administration and management

of all the 36 normal schools which were then redesignated as Government Elementary Colleges of Education (GECEs).

Another major reorganization took place in 1993 when the REEC, Punjab was upgraded and redesignated as the Directorate of Staff Development (DSD) with responsibility for carrying both the functions — management and administration of the GECEs and the provision of in-service training.

The final revolutionary measure in teacher education in the Punjab was taken when the University of Education, Punjab, was established in 2002 and the administrative, financial and academic control of all elementary (primary and middle) and secondary teacher education i.e. control of GECEs and colleges of education passed on to the University of Education. All the GECEs were re-titled as University Colleges of Education (UCEs). The PTC, CT certificate courses have been abolished. Only graduate and post-graduate courses are offered by the UCEs. The University took over not only the pre-service institutions but also the Directorate of Staff Development and the Provincial Institute of Teacher Education which was created in 1996. Thus the total control of both pre-service and in-service teacher education, elementary and secondary, including curriculum, assessment and examinations, and evaluation and research went under the control of the University of Education Punjab.

The arrangement however seems to have encountered some administrative hurdles and so the Directorate of Staff Development has been separated from the University and its independent status has been restored.

#### **4.0. Organizational Upheavals in Teacher Education**

##### **4.1. Integrated Model of Pre-service and In-service Teacher Education**

The Bureaus of Curriculum and Extension Centers were established in 1972 in all the four provinces. The main functions assigned to the Bureaus were (a) Curriculum Development and Evaluation (b) Materials Development in collaboration with Textbook Boards and (c) In-service Teacher Education.

With the passage of time the idea of integration of Pre-service and Inservice teacher education gained strength and the Bureaus in all the three provinces, and the REEC in the Punjab took over the administrative and academic control of the Elementary Colleges of Education offering PTC and CT courses preparing primary and middle school teachers. The Bureaus also became the examining and certification bodies for these courses. The school and teacher education curriculum, textbooks development, preparation of teachers, their certification and in-service training thus came under one umbrella.

There were many advantages of this scheme. Previously the training institutions under the Directorate of Education used to send out a large number of trained teachers in the job market who were unaware of the new contents and new demands of the evolving curricula. Under the Bureaus which were the prime institutions for curriculum and materials



development, the teachers taking pre-service and in-service training received the benefits of first hand knowledge of the new curricula and methods thus reducing the chronic need for holding refresher courses for freshly trained teachers. Moreover the examinations of PTC and CT under the Bureau were more relevant to the required knowledge and skills. The University of Education has been divested of its control over PITE and training colleges which have reverted to Education Department.

#### **4.2. Disintegration and the Restoration**

The integrated scheme worked well for more than a decade. Then with the quantitative expansion of education the Bureaus began to be overloaded with work. In Sindh the government gave permission for the establishment of teacher training institutions in the private sector. Due to the overload of candidates, the conduct of PTC and CT examinations was given over to the Board of Intermediate and Secondary Education.

In 1994, the PITEs appeared on the scene under the Teacher Training Project sponsored by ADB. They were conceptualized as the “apex institutions” for all innovative developments ? planning, production, implementation, evaluation ? in teacher education. Later there was confusion and overlapping between the functions of the Bureaus and the PITEs in each province.

In Sindh the administration and academic control of all the GECEs was taken away from the Bureau and given over to the PITE. The curriculum role of the Bureau was transferred to the Sindh Textbook Board and the Bureau was renamed as the Centre for Research and Assessment. However in just one year (March 2003 – July 2004) the status quo was restored. The organization reverted to the integrated model except for the examinations which remained with the Board of Intermediate and Secondary Education.

In Balochistan the PITE lost its independence and went under the control of the Bureau, while in NWFP, the government stepped in and notified the functions of the Directorate of Curriculum and Teacher Education (BoC renamed) and the PITE to avoid overlap and confusions.

In the Punjab, the apex institution PITE lost its identity and became a constituent institution of the University of Education, providing B.Ed., M.Ed. and other professional courses. The curriculum development function has been given over to the Punjab Textbook Board while the Department of Staff Development (DSD) mainly performs the functions of in-service training and materials development.

The Bureaus of Curriculum created in 1972 are well established institutions. In Sindh, Balochistan and NWFP, in addition to the administration and academic control of GECEs, they are providing valuable support in the implementation of government’s policies towards improving the organization, management and quality of education. The Bureaus have good accommodation and are well-supplied with essential equipment. The Sindh Bureau is now well-equipped with IT facilities. It has highly qualified and trained faculty. In addition to the management of the pre-service training institutes (PTC, CT), the BoCs

undertake a large number of activities each year such as in-service training, materials development and research.

The PITEs too have been provided with excellent facilities including modern IT gadgetry. Their staff too is highly qualified and a majority has foreign study experience. The PITE in Sindh at Nawabshah has excellent buildings and accommodation. It has a main academic block, an administration block, a lab school, a science education centre, male and female hostels, and residences for faculty and employees. The premises are spread over 24 acres of land.

PITEs in the other three provinces are similarly provided with physical facilities as well as qualified and trained manpower. The PITEs in Sindh, Balochistan and NWFP mainly engage in in-service training and staff development activities. Most program are held under sponsorship of donor agencies like UNICEF, UNESCO, ESRA, NCHD etc. and the government's Education Sector Reforms ESR program.

## **5.0. Unit Cost of Teacher Education**

The unit cost of conventional teacher education has been calculated on the basis of training institutions' budgets for 2003-2004. The unit cost of teaching a PTC/CT candidate ranges between Rs.15, 000 to Rs.110, 000 annually (annex 10). Most of the budget allocation is spent on staff salaries ? 99% to 60%. The non-salary allocation in the budget ranges from a maximum of 40% to a minimum of 1%. "Increase of non-salary budget for provision of improved educational environment and learning materials" is one of the measures in the ESR Action Plan for the improvement of quality in education (ESR Action Plan, 2004, p11).

The cost of conventional teacher training globally is on average 7.6 times the cost of training a secondary school student. In Pakistan it is a staggering 25.5 times higher. (Lynn Davies, Global Perspectives on Teacher Education, 1996). Producing low grade teachers at such a high cost should be a matter of concern for controllers, planners and policy makers of teacher education.

The ratio of salary non-salary budgets shows a lack of skills in planning and management of teacher education. The high unit costs are due to an imbalance in the teacher-pupil ratio while budgetary allocation for availability of teaching aids, technology, supplementary reading and reference material, maintenance and monitoring are neglected. (Annex 7)

## **6.0. Lacuna in Policy Planning and Implementation in Teacher Education**

In spite of the well developed, well staffed and well organized institutions ? BoCs, PITES, DCTE, DSD, UoE ? some of them still in their infancy ? there is too much turmoil in teacher education in the provinces. "There is no effective relationship between the demand and supply of teachers at any level of education in Pakistan. Teacher training is carried out without a viable policy and planning framework, resulting in imbalances between the demand and supply situation" (National Education Policy 1999-2010 p48). The situation in NWFP ? the closure of 10 out of 20 RITEs and the suspension of training

in the remaining 10 for three years, bespeaks of the verity of the policy statement. The policy further estimates that there is a surplus of about 65,000 professionally qualified unemployed teachers. Perhaps that is one of the factors that led to the abolition of PTC and CT courses in the Punjab, and the raising of the minimum qualifications for appointment as an elementary teacher, since more than a sufficient number of BA Bed and BSc B.Ed. teachers are available for employment.

The rapid and, in some instances, abrupt (as in Sindh) organizational changes in teacher education indicate the lacuna in educational policy planning and implementation, both at the provincial as well as the federal level.

There is also absence of coordination, networking and linkages between institutions and a lack of consultation and consensus among them. There is insufficient direction and control from the Federal Ministry of Education and monitoring of Educational Policy Implementation. The failures of the Diploma Courses and of the extended graduate and postgraduate courses are just two examples of lukewarm implementation of policy directives.

The gap between policy and implementation is also evident from the non-implementation of the ESR 2004 directives laid down in ESR 2004 document (i) creating separate teaching and management cadres; (ii) instituting performance-based teacher evaluation (iii) non-issue of regulations for recognizing and supporting holders of Diploma in Education; (iv) increase of non – salary budget for the provision of a conducive environment.

These lacunae in policy planning and implementation need to be removed. There should be a body to monitor and report on implementation of policy directives in the teacher education sub-sector. The Technical Panel of Teacher Education existing at the national level should be transformed into a high-powered body and assigned the task.

## **7.0. Service Structure of Teacher Education Faculty**

As in the organization of teacher education, there is diversity in the service structure of faculty as well. In Sindh the GECEs teacher educators carry college ranks i.e. Lecturer, Assistant Professor, and Professors etc. In Balochistan, the GECE faculty carry the titles of Senior Subject Specialists and Subject Specialists; in NWFP they are Instructors and Subject Specialists, while in Punjab, although all institutions are now University Colleges of Education, the staff still carry the ranks of Subject Specialist and Senior Subject Specialist.

The selection of faculty is done by Public Service Commissions. M.Ed. is the minimum required qualification for appointment. Although the cadres of faculty in training institutions under one controlling authority are said to be separate, there is no separate cadre of teacher educators; the posts are inter-transferable between the colleges, the EDO Schools and the Provincial Department of Education. Often heads of schools who do not perform or teachers who are unwanted are transferred to the GECEs and posted as principals or teacher trainers. Bernard Shaw's famous dictum, "Those who can, do; those

who can't, teach", can undergo a slight modification to illustrate the situation ? those who can, teach; those who can't, become teacher trainers. (Brock, 1996)

The promotion of faculty to upper grades is in accordance with the universal 4-tier college cadre formula, applied on the basis of seniority. No performance criteria or merit are of any concern. The ESR under the "Strengthening of teacher training programs" mentions the creation of separate teaching and management cadres and performance-based teacher evaluation and compensation. (ESR Action Plan 2004, p29). There is no step taken as yet towards the implementation of this reform.

## 8.0. Curricula, Courses and Syllabuses

The PTC and CT courses preparing teachers for primary and middle school teaching were last revised and introduced in 1995. The Curriculum Wing of the Federal Ministry of Education develops the curriculum in collaboration with provincial curriculum bureaus. The B.Ed. and M.Ed. courses are also formulated under the aegis of the Curriculum Wing but routed to the Universities through the Higher Education Commission (HEC), formerly University Grants Commission UGC. The Universities have their own academic councils which decide about implementation or modification of the syllabuses.

In September 1996 the Ministry of Education Curriculum Wing under the Teacher Training Project (TTP) designed a detailed scheme of curricula and courses for the whole gamut of teacher education. This proposed network of teacher education program comprised:

- The Diploma in Education – **DIP.Ed.** – (10+3) or (12+1); the standard Elementary teaching qualification;
- The Bachelor of Education – **B.Ed.** – covering both Elementary and Secondary either (12+3) or (14+1½);
- The Master of Education – **M.Ed.** – (15+1½);
- The Master of Arts in Education – **M.A.(Ed.)** – (14+2);
- Postgraduate Certificates, such as the Post Graduate Certificate in Teacher Education **PGCTE**; the Post Graduate Certificate in Educational Technology **PGCET**; the Post Graduate Certificate in Educational Management **PGCEM**; and postgraduate diplomas;
- Higher degrees in education, such as **M.Phil.** and **Ph.D.** (Annex 8)

Notwithstanding the Ministry's schemes, the courses currently offered by various institutions are shown in the table below:

<b>Courses</b>	<b>Entry Qualification</b>	<b>Duration</b>	<b>Preparation for Teaching</b>	<b>Institutions</b>
PTC (10+1)	S.S.C. (10)	1 academic year	I-V	GECEs (Sindh) GECEs (Balochistan) RITEs (NWFP)
CT (12+1)	Intermediate (12)	1 academic year	VI-VIII	GECEs (Sindh) GECEs (Balochistan) RITEs (NWFP)
B.Ed. (14+1)	B.A./B.Sc.	1 academic year	IX-X	Colleges of Education
B.Sc.Ed (12+3)	Intermediate (Science)	3 academic years	IX-X	University College of Education, IERs, University Departments of Education
M.Ed.	B.Ed.	1 academic year	IX-X + Teacher Education, Supervision, Administration	Do
M.A. Ed.	B.A. / B.Sc.	1 academic year	do	Do

The Federal Government College of Education, Islamabad, offers the Diploma in Education (12+1½) as well as the B.Sc.Ed / B.S.Ed (12+3) courses. The college also offers the B.Ed, M.Ed (Elementary), M.Ed (Secondary), M.Ed (Science Education) and M.A. (Ed.). It is the only college that has the distinction of offering such large variety of courses in education. However there has not been any evaluation of the quality of instruction in the college.

A number of University Colleges of Education (UCEs) in Punjab offer the B.Sc. Ed courses along with the B.Ed and M.Ed courses. The UCE (Women), Islamabad, and the UCE (Men) Dera Ghazi Khan are among these institutions.

The Diploma in Education Model I (10+3) and Model II (12+1) were offered by a number of GECEs and PITEs during 1996-2002. Some colleges continue to offer Diploma in Education. The regulations required to allow the diploma holders entry into graduate courses for further education or for eligibility for appointment as elementary school teachers never materialized. The courses were discontinued. The diploma courses were described as "Facilitating an Upgraded Unified Approach" by the Curriculum Wing Course Document (1996). There needs to be investigation as to why the scheme failed, so that lessons could be learnt.

Another innovation in course design (1996) is the option in B.Ed. courses of specialization in elementary education or secondary education. At least this option is being offered in some of the colleges in the Punjab. The subject offered presently at PTC and CT courses are given at annexes 8 and 9.

## **9.0. Admission Criteria**

Admissions to the professional courses are on the basis of merit. A second division (45% marks) at the minimum entry level (Matric/Intermediate/B.A., B.Sc.) qualifies a candidate to apply for admission. Merit at entry tests and interviews determine a candidate's admission to the courses. In Balochistan scholarships of Rs.250/ per month and Rs.350/ per month along with Rs 500/ year for books are offered to PTC and CT trainees respectively. Admission can also be granted on a self finance basis. There are admission quotas for 4 districts in GECEs Quetta and for 7 districts in GECEs Mustang. Besides these, there is a self finance admission scheme. There are admission quotas in UCE Islamabad for sports, disabled, and teachers' wards. In the Government Federal College of Education the quotas are for FATA, FANA, Military, and teachers' wards.

The GECEs charge tuition and other fees ranging for RS. 390/= to RS. 6280/= per year. Some of these institutions have self financing schemes where the applicant is charged an 8 to 10 time's higher rate of annual fees.

The student intake at the professional training courses is of low quality. Those who fail to get admission in higher education institutions or cannot afford the cost of further education or don't get jobs in other fields, turn to education. Teachers at primary as well as secondary level carry a low social status. The salaries are low for the primary school teachers and there is no promotions ladder.

The low quality of intake exacerbates the job of the teacher-educator. The weak grasp of subject content among the trainees, the overloaded courses and the short duration of training create stress that discourages trainers from adopting innovative training strategies.

## **10.0 Scheme of Studies, Curriculum and Textbooks.**

### **10.1 Scheme of studies**

One, two or three-year courses lead to the acquisition of a certificate, a diploma or a degree in education. Each course comprises of a number of papers on different aspects of education. For example, for the PTC course the trainee students are required to appear at an examination comprising of eleven papers of 100 marks each. Three hundred (300) marks are allocated for Teaching Practice and Final Lessons delivered in the presence of an external examiner. This listing of papers, allocation of marks and duration of the course are elaborated in a document called the **Scheme of Studies**. (Annex 9 and 10)

## 10.2 Curriculum

The document that provides the detailed objectives and contents for each paper in a particular course is termed as the **curriculum**. For each paper in the scheme of studies, the curriculum document provides a detailed description of objectives to be attained, the content to be studied, the assignments to be completed and a list of textbooks and reference books and, in certain curriculum documents, the methods of assessment and evaluation are also described. The curriculum also provides guidelines for textbook writers for each one of the papers and some hints and guidance to the teacher educators regarding the treatment of the content.

The curriculum booklets for PTC and CT published by the Curriculum Wing (1995) are very thorough in describing the general and specific objectives for each unit of the eleven papers, the details of content and practical work in the shape of assignments, field observations, action research etc.

Curriculum also contains “Guidelines for Textbook Writers” for each paper and finally “A Note for Teacher Educators”. “The teaching faculty should bear in mind that the revised curriculum lays emphasis on the acquisition of practical skills, as envisaged in the National Education Policy, 1992 - - -” so begins the Note.

The B.Ed. courses are designed on a similar pattern and introduce the student-teacher to the most modern ideas and approaches in teaching. One of the papers is titled “Modern Approaches to Teaching”.

If the PTC, CT and B.Ed. curricula are implemented in their true spirit with all the emphasis on practical work as recommended in the curricula, and with the extended time as prescribed for the courses, there is no reason why the quality of the product ? the trained teacher? cannot come up to acceptable standards.

## 10.3 Textbooks and Reading Material

The textbooks for the different papers, offered in a course of study, are developed, printed and published by the Textbook Boards or by private publishers who hire authors to write the textbooks. The Textbook Boards also hire authors for writing the textbooks. The books printed and published by the Textbook Boards are called the “prescribed textbooks” while those published by private publishers or authors are often listed in the curriculum booklets as “reference books”

The official PTC and CT curricula include guidance to textbook writers and authors about the content and approach in treatment of the subject content. The Textbook Boards were supposed to undertake the writing, printing and publishing of the textbooks. Only a few books were produced by the different Boards. Even these are scarcely available. For the rest of the subjects in the syllabus PTC, CT guidebooks are available printed by private publishers. These are used by the student teachers and even by their trainers. Note-giving and dictation are very common in the PTC, CT and even B.Ed. classrooms. For most PTC,

CT subjects, the trainers use books written for B.Ed. courses by B.Ed. college professors, make notes and distribute photocopies or dictate. The B.Ed., M.Ed. curricula do give a list of reference books, often written by foreign authors, which are scarcely available, neither in the book market nor in the college libraries. Again guidebooks and solved papers published by private publishers come to the rescue of both the trainees and trainers.

### **11.0. Buildings and Accommodation**

Most of the institutions visited have satisfactory buildings and classroom accommodation. However, some in Sindh are ancient structures which need repairs and renovation. A majority of them have hostels and attached practicing schools. The BoCs and the newly established PITEs have the best buildings, accommodation and other physical facilities.

### **12.0. Equipment and Teaching Learning Resources**

#### **Science Labs**

The majority of the institutions visited had adequate science lab facilities but most of the lab tables and the locked almirahs containing apparatus were gathering dust — evidence of disuse and lack of maintenance.

#### **Libraries**

Similar was the case with libraries. Locked almirahs with old, outdated books and shiny bound volumes mostly on Religion and Islamic History was the common scenario in the libraries. Some institutions had a few recently published books related to the courses. There was no open shelf library in any of the institutions, and no regular yearly allocation for the purchase of books. None subscribed to educational magazines, nor were there any efforts to obtain magazines gratis from donors.

#### **Information Technology**

All institutions except four out of fifteen visited had computers. There are well equipped computer labs with 15-30 computers. In most cases the machines have been donated by Microsoft or other donor agencies. Except for GECE (W) Hussainabad in Karachi none had Internet connections. Since learning of computer skills is not part of the syllabus as yet, the computers are seldom used as teaching learning tools.

The institutions did not have an adequate supply of the other routine teaching-learning equipment such as charts, maps, globes, models, etc.

### **13.0. A Performance Gap Analysis — Problems and Issues in Teacher Education**

#### **13.1. Short Duration of Courses**

The duration of teacher preparation courses is short in comparison to other countries in the region. “There has been a constant observation that the duration of primary school teaching certificate is far below the norm of other developing countries in the world. Generally, the



programs for Primary School Teaching Certificate range from 12 to 16 years of both general education and teacher training programs. The norm is, therefore, around 14 years of education in most of the countries in the world". (National Education Policy 1998-2010). The Diploma courses Models I and II (1996) proposed an extended duration of 10+3 years and 12+1 years for preparation of elementary teachers. Both models were experimented in PITEs and some Elementary Colleges of Education but were evaluated. The B.Ed., M.Ed. extended duration courses were never even tried.

The short duration of training and lengthy syllabuses, with redundant content, was a common complaint of teacher educators at all levels. Excluding summer and winter vacations and other national and local holidays the one year courses are actually of 9-month duration which includes 6 weeks of teaching practice that is only 15% of the course duration. The remaining 33 weeks or just 7½ months is insufficient time to study the eleven subjects in both the PTC and CT courses. The situation with B.Ed. courses is not much different. There is little scope for improvement unless the redundancy is weeded out, more time is allocated for learning teaching skills and practice teaching, and course durations are extended.

### **13.2. Poor Quality of Teaching**

The teaching in the PTC, CT and B.Ed. classrooms is lecturing and dictation. Teaching techniques like group work, problem solving, and activity approach are lectured about, not practiced by the trainers. The trainees are not involved in any of the activities or practical work suggested in the syllabuses. The trainee teachers, when they go to their classrooms, teach the way they were taught through didactic.

The curricula in science and methods of teaching science at PTC and CT level recommend practical work and experiments. Although almost all the institutions visited by the consultants had science laboratories, the almirahs with locked apparatus and the work tables gathering dust in mist of them, were evidence of disuse. No journals of practical work were available with the students. The lesson notebooks produced on demand presented a record of the ignorance of the student teacher in lesson planning. In a lesson plan on a science topic a student teacher declared (perhaps with pride) that "the teacher will use the lecture method in explaining the concepts". The consultants came across no lesson notes in any subject where learning activities were mentioned; even the mention of a "lecture demonstration" in science was infrequent.

The fundamental and most recommended approach to teaching in the elementary classrooms is the "Activity Approach" which ensures "child-centered" teaching-learning and active participation of pupils in the teaching-learning process. The ESL, Science and Mathematics courses offered in the U.S. to Pakistan teacher educators also stressed the activity approach and the course participants were provided the opportunity to visit activity oriented classrooms.

The activity-based approach can be implemented in two ways:

- a) The practicing/lab school teachers should be specially trained in adopting the activity-based pupil-centered teaching. The student-teachers should be required to observe at least 10-lessons of activity-based teaching in actual practice before they start their own teaching practice.
- b) The teacher-educators should also adopt activity-based approach in teaching all the subjects in the PTC/CT/B.Ed. curriculum. For this they will have to plan their strategies in detail before the start of the semesters.

All the colleges visited had libraries but library study was rarely integrated into the learning program.

### **13.3. Practice Teaching ? for Supervisor's Initials!**

Teaching practice is a compulsory component of all teacher education courses — PTC, CT, B.Ed., BS.Ed. A majority of institutions have “attached practicing schools” which are often insufficient due to the large number of trainees particularly in the B.Ed. colleges. Government schools are often used as practicing schools. The supervision of teaching practice and guidance to the novice teacher is often brief and mostly just an initial in the lesson notebook by the supervisor, trainer or by a teacher of the practicing school. Most of the course time is spent on theory, less on practice, only 15%. “There should be more emphasis on teaching practice, rather than on what Aristotle said” was the comment of a principal on the PTC, CT curriculum (Warwick, 1990).

The consultants had the opportunity to visit only a few classroom lessons of teacher-trainers in progress. All were lectures without exception. The trainees' lesson notes were indicators of the shortcomings of the training. A study of several lesson notebooks clearly indicated that:

1. The student teachers do not know how to write instructional objectives relevant to the topic at hand. What they write are mostly general objectives that are really teacher-objectives rather than learning outcomes.
2. The “presentation” part of the lesson plans showed that the trainees missed the major ideas/concepts in the lesson.
3. The grasp of subject content is weak.
4. The few questions put into the notes are all “simple recall”. Nothing beyond. The notes did not show that the trainees have any idea of low-level/high level questions.
5. Most lessons were just lectures and their students were passive listeners exactly like the classroom of their masters ? the teacher educators.

6. There were no learning activities included in the lesson plans ? no involvement of the students in the lesson. Only in the subject of science a few lesson notes mentioned a “demonstration”.
7. The assessment questions at the end of the lesson again demanded simple recall of the textbook material.

The study of the Lesson Notes clearly reflected the totally inadequate guidance by the teacher trainers in practical lesson delivery skills. The initials of the teacher trainer or supervisor at the end of the note certified that the lesson was satisfactorily delivered or at least that the lesson note was satisfactory.

Peer observation ? i.e. observation of a trainee’s lesson by fellow trainees, recording comments on the lesson in a lesson observation notebook and later discussion of the comments with the trainee ? is an effective technique used in training teachers. The technique was in practice in only two institutions out of the 14 visited.

When asked about the short cut to course completion through lectures and the dismal situation with the teaching practice, the reasons cited by the trainers were “overloaded syllabi, short duration of training, too many lessons to observe, - - -”.

In some colleges, which were visited during Ramzan, we could not visit the classrooms nor could we look at lesson notes. When asked about the quality of their products, the principal and the faculty claimed that theirs were the best. The evidence they said was that they got appointments not only in the government but also in the private schools. Otherwise there was no other source of feedback about the performance of the trained teachers and therefore no reason for them to change their own approaches or strategies in training the teachers.

### **13.4. Absence of Supervision, Monitoring and Performance Appraisal of Trainers**

Seldom, if ever, a college principal deems it appropriate to sit and observe the class of a teacher trainer. There is no guidance or induction of a freshly appointed teacher trainer. The fresh appointee is often a secondary teacher with a M.Ed. degree or a Head of a Secondary School with no experience or knowledge of dealing with adult classrooms. The trainers of primary teachers (PTC courses) have never experienced teaching primary school children.

There is no system of Performance Appraisal of the teacher educators relevant to their jobs. There is no job description. Promotions to higher grades or higher post are on the basis of seniority rather than on the basis of performance appraisal. The Annual Confidential Reports (ACRs) are just maintaining an outdated tradition of form filling rather than a modern Performance Appraisal System. “Institutionalizing monitoring and evaluation of performance” is one of the goals of the ESR program. (ESR Action Plan 2004, p26). It also mentions consolidating performance-based teacher evaluation and

compensation (ESR, April 2004, p29). No process has been initiated as yet to implement the proposed reform.

### **13.5. No Feedback Mechanism, No Quality Control**

Any concept of “quality control” is totally absent from the system. The short duration courses, the lecture style delivery, the short and unsupervised teaching practice, the absence of supervision, and the monitoring and performance appraisal of trainers, are a combination of tragic factors that conspire to produce low quality of professionally certified teachers.

When asked, “Do you ever follow-up your trained teachers? That is visiting the schools where they teach? Observe their teaching? Do you get any feedback on their teaching performance from any other source?” all faculty members who were interviewed answered in the negative. There is no feedback mechanism in existence. No one in the teacher education system seems to worry about the quality of their product.

“Why do private school students fare better at Board exams than government school students, although the private schools mostly employ untrained teachers, while almost all teachers in government schools are trained teachers? What is the reason for better performance of private school teachers?” This query was put to faculty members as well as principals in most of the GECEs. Two reasons were commonly cited in response: “job security” and “lack of accountability”. When pointed out that the two reasons can equally be the underlying cause for their own lack of effectiveness in producing quality teachers, no faculty member agreed to the suggestion. Naturally, they didn’t like to take the blame.

Analyzing the two aspects of the situation it can fairly be concluded that both factors ? (a) low quality teacher training producing low grade teachers, and (b) lack of supervision and monitoring in the school system ? contribute to the deteriorating standards of education in government schools.

### **13.6. Institutional Performance Evaluation**

There are no visits from the Controllers of the institutions or their authorized teams especially for the purpose of inspection/evaluation of the institutions. Their occasional visits are for administrative reasons or for chairing of ceremonies. No annual progress reports, future plans of the institutions, or inspection/evaluation reports from Controlling Authorities are in existence.

### **14.0. Linkages between Institutions, Curriculum Bureaus and PITES**

The meetings of heads of institutions with the directors of umbrella organization are held usually once or twice a year for the purpose of discussing schedules — admissions, semesters, examinations, fees — and settling other administrative matters. Academic issues are never on the agenda. There are no meetings of Heads of Institutions solely for the purpose of discussing academics. There are no academic linkages between the

Provincial Bureaus or the Provincial PITES. At the national level there is a Technical Panel of Teacher Education that provides a very weak and ineffective linkage.

## **15.0. In-service Training**

### **15.1. In-service Training of Teachers**

The BoCs and PITES in Sindh, Balochistan, NWFP, and the DSD in the Punjab, play a major role in providing in-service training to practicing school teachers. In-service training was institutionalized with the establishment of the Regional Education Extension Centers (REECs) in all the provinces in the late sixties. In Sindh, there are two REECs, one In-service Training Centre and eight Divisional/District Educational Technology and Resource Centers (DETRCs) offering in-service training to primary and secondary school teachers. The DETRCs provide training for the use of A-V aids and for designing and constructing low cost teaching aids. The concept of Educational Technology Centers is unique to Sindh. However, there are no reports on their functioning and output and they seem to be in a state of attrition.

The BoCs and the PITES offer a large number of in-service training courses to primary and secondary school teachers, heads of schools, managers, and administrators working in the public school system. Most of the courses offered to primary and secondary school teachers are generated through donor assisted projects such as the Teachers Training Project (TTP), the Middle School Project (MSP), the Science Education Project (SEP), and agency funded programs. Agencies like UNESCO, UNICEF, IUCN, ESRA and others, sponsor in-service training in specific areas like Population Education, Early Childhood Education, Human Rights, and Joyful Learning. Usually these are two to six-day workshops on specific topics related to the projects of the agencies and not necessarily relevant to the needs of the teachers.

The ESRA has launched a large scale training program of primary school teachers and heads, supervisors and Assistant District Education Officers in Sindh and Balochistan under its Professional Development Component. The Teachers Resource Centers (TRCs) and the Training Outposts (TOs) take training to the workplace of the teacher. However the quality and effectiveness of training has rarely been evaluated.

In the private sector several institutions are offering both pre and in-service training, prominent among these with the degree of success is M.Ed. AKU. The Institute for Educational Development (IED) of the Aga Khan University also offers in-service training to teachers and management personnel in the government system. The Department of Staff Development (DSD) in the Punjab has undertaken a massive program of offering Bridging Courses to under-qualified (Matric PTC, Inter CT) elementary school teachers to enable them to improve their qualifications, now that the minimum qualification for appointment as an elementary school teacher (primary or middle classes) has been raised to B.A/B. Sc and B.Ed.

During the last decade there has been a proliferation in the number of in-service training courses, in the variety of topics of the courses and in the number of agencies offering the courses. Almost 60-70% school teachers with five year tenure of service have undergone at the least one in-service training, particularly now that the TRCs and the TOs have carried the training to remote rural areas as well.

The impact of the courses has been investigated and recorded in only a few instances. The Implementation Completion Report (ICR) of the Sindh Primary Education Development Program (SPEDP) gives a positive account of improvement in classroom teaching because “SPEs and LCs are now increasingly engaged in providing support to the teachers. The transformation through SPEDP is at an early stage and it needs to be reinforced through continuous training support” (SPEDP-ICR, 1999). Other investigators are skeptical about any significant improvement in student achievement as a result of in-service training courses “While they (the in-service training courses) take place in different regions and cover many topics, the national survey of schools could find no relationship between them and the quality of teaching or student learning” (Warwick and Reimers, Hope or Despair, 1995, p44).

### **15.2. In-service Training of Teacher Educators**

The teacher educators of the GECEs and Colleges of Education also get opportunities of in-service training. But most of the courses for the teacher educators are for preparing them as Master Trainers (MTs) for conducting workshops for school teachers on specific topics. This study collected the information through a Performa filled in by each faculty member of each institution in the sample. The individual faculty members’ proformas show that almost 70-80% faculty members have attended 3-5 different in-service courses on an average. About 8-10% of total faculty in the sample 24 institutions have had opportunities of foreign training as well.

Very little local training offered to the teacher educators is relevant to their particular field of teaching. There is need to provide refresher courses to the teacher educators on topics related to the courses they teach.

### **16.0. Private Teacher Training Institutions**

Until the end of the seventies teacher education and training was the sole realm of the federal and provincial governments. In the 1980s private teacher training institutions started to appear on the scene which has considerably deteriorated the quality of teacher education. However, only few of them gained high repute which included the IED, Aga Khan University, the Notre Dame Institute of Education, and the Ali Institute of Education.

A majority of private training institutions are however, commercial enterprises in reality, churning out low grade teachers. The facts from Sindh reproduced below are an example:

“In addition to the GECEs there are 19 Elementary Colleges of Education (ECE) under private management and 3 run by Karachi

Municipal Corporation (KMC) with a total enrolment of 3,000 candidates. The private institutions are required to register with the BoC and get recognition from the Board of Intermediate and Secondary Education (BISE). As in the case of private schools there is no control or supervision of these institutions. They charge high fees, employ under qualified, unprepared teacher trainers, provide written notes and guides to their students, and do not apply any rules requiring minimum attendance. These institutions are a major cause of the low quality of trained teachers. The Allama Iqbal Open University (AIU) is also contributing towards inflating the yearly output of trained teachers through its distance PTC/CT programs. There are no studies comparing the quality of distance trained teachers with GECE trained teachers.

*The GECEs together with the private teacher training institutions, the AIU and also the Agricultural University Tando Jam offering B.Ed/M.Ed courses have together created a surplus of trained but low quality teachers in the market. The proliferating private training institutions are the major cause of (a) the deteriorating quality of teacher training and low-quality of trained teachers and (b) the surplus of unemployed trained teachers.*

*The private training institutions should either be legally banned, as in the Punjab, or brought under stricter control and regulations for maintaining acceptable standards of training”. (SEERP Review, 2000)*

In NWFP the Abbot Law College and the Justice Law College offer B.ED courses. Peshawar University has given them the affiliation. Similarly, Al-Khair University is offering professional degrees Pakistan-wide. This has resulted in a surplus of low grade trained teachers which has compounded the problems of teacher quality and is one of the major causes of deteriorating standards of education in public schools. In Balochistan, the government stepped in and refused recognition to private institutions that had cropped up.

## **17.0. Training and Physical Needs Assessment of Public Sector Training Institutions**

### **17.1. Training Needs**

Principals and faculty were both asked about their training needs. The general answer from both sources was that “yes, everybody needs training — training in new techniques, methods and approaches”. There was no specific identification of training needs. The response was the same even from the controllers. However, on the basis of interviews and observations, the following training needs are identified.

### **17.1.1. Training in Administration**

The word Administration in Pakistan educational context smacks of transfers and postings, budgets, purchases, accounts, audits, PCIs and so on. These may be the secondary tasks of a training college principal. The primary task is to take all measures to raise the efficiency level of the institution and constantly strive for the improvement of quality. Some aspects of training needs in Administration as deduced from interviews and observations recorded in sections 14.1-14.6 would therefore be:

- ? Institutionalizing Continuous Staff Development within the institutions.
- ? Procedure for Induction of Fresh Appointees.
- ? Development and Implementation of a Performance Appraisal System.
- ? Quality Control and Feedback Mechanisms.
- ? Organization and Deployment of Resources.
- ? Supervision and Monitoring.
- ? Institutional Performance Evaluation.
- ? Utilization of Community Resources in enhancing institutional efficiency.

### **17.1.2. Training of Teaching Faculty**

- ? Modern curricula and methods in teacher education, particularly the activity and constructivist approach in teacher training. The teacher-educators should learn to use these approaches in their own classrooms for teaching their own subjects.
- ? Educational psychology: recent research findings on how children learn.
- ? Measurement and evaluation of student achievement.
- ? Curriculum Development and Evaluation.
- ? Use of technology in education: Computers, Internet, Multimedia, etc. Computer Assisted Instruction (CAI).
- ? Assessment in Teacher Education.
- ? Action Research ? the teacher as a researcher.
- ? ESL:
  - ? Modern technology of Teaching English as a second language.
  - ? Use of technology in language learning: Cassette recorders-players, Television, Video Cassettes, Computers.
  - ? CAI in teaching ESL
  - ? Assessment in ESL
- ? Science:
  - ? Implementing the Activity/Discovery Approach in the Teacher Training Classrooms.
  - ? Organizing practical work.
  - ? Using environment as resource in teaching science.
  - ? Teaching the Processes.
  - ? Testing for understanding, application and problem solving.
  - ? Use of CAI in teaching Science.



- ? Mathematics:
  - ? Discovery approach in Mathematics.
  - ? Use of materials in teaching mathematics.
  - ? Testing for understanding, application and problem solving.
  - ? Use of CAI in teaching Mathematics.

## **17.2. Needs in Physical Facilities and Equipment**

- ? Some buildings need repairs and renovation.
- ? The classroom furniture in all training institutions and practice schools is of traditional design. Light movable furniture is required for practicing activity approach and group-work.
- ? Science labs need curriculum relevant equipment and workshop tools for devising low-cost teaching materials.
- ? Lab attendants need training as lab technicians.
- ? Teaching material of daily classroom use such as charts, maps, globes, models are in short supply in most institutions.
- ? Computer teacher posts need to be created for teaching computer applications.
- ? Internet connections need to be provided.
- ? Audio-Video and projection equipment is inadequate.
- ? Libraries need to be refurbished with recent publications in education, teaching ESL and teaching of Science and Mathematics. Educational magazines need to be made available.

## **18.0. Recent Innovations in Teacher Training**

### **18.1. Teachers Resource Centers (TRCs) and Teaching Outposts (TOs)**

Rather than bringing the teacher to the training center, taking the training to the school is a daring new strategy in in-service teacher training. The Teachers Resource Centers (TRCs) and the Teaching Outposts (TOs) were visualized to perform this role.

The Bureau of Curriculum, Balochistan has established 123 TRCs under the ESR Program sponsored by the Federal Ministry of Education. The BoC and the PITE each house one Super-TRC. There are 11 TRCs in GECEs and 110 district level TRCs in schools. The TRCs serve a cluster of 8-10 schools in a 16 km radius. In the NWFP there are TRCs and TOs under the PITE. In both provinces these in-service training centers are very well equipped with modern equipment. The PITEs oversee and support these training out-posts. It's a mobile in-service teacher education. There are TRCs in Sindh too under local administration of EDOs. The Training Outposts and TRCs are situated in primary or secondary schools. One of the school teachers is in-charge. EDOs from the local government are responsible for the functioning of the TOs. Although an innovative measure in strengthening the teacher-support system, in providing continuous on-the job assistance to the classroom teacher, their fruitful utilization is doubtful since there is no

monitoring mechanism and no information was available even with the PITES or the Bureaus about their inputs or outputs.

### **18.2. Internship or a Teaching House - Job**

The University of Education Lahore requires the B.Ed. examinees to do teaching in government schools for six months. The trainee is eligible for the award of a degree only after successful completion of the internship, certified by the school head. It is an attempt at creating a licensing procedure for adoption of the teaching profession. Properly organized, it can be utilized as a feedback mechanism for evaluating the quality of the trainee and the training.

### **18.3. Institutional Performance Evaluation**

The University of Education Punjab is in the process of devising a scheme whereby there will be teams of expert teacher educators and teacher education managers who will make regular visits to the UCEs and evaluate their performance. Controllers of teacher education in other provinces also need to think and plan for institutional performance evaluation.

### **18.4. Assessment of Pupil Achievement**

A new initiative in evaluation of student achievement is the establishment of the National Educational Assessment System (NEAS), with provincial cells at Curriculum Bureaus and PITES under the title of Provincial Educational Assessment Cell (PEAC). Although this innovation is not directly concerned with teacher education it would provide at least one indicator of the success or otherwise of the efforts at improving teacher quality.

## **19.0 Relevance of Teacher Education Curriculum in ESL, Math and Sciences and PTE PDP Subject Specific Training.**

### **19.1. ESL in PTC, CT and B.Ed. curriculum**

The PTC and CT courses in “Teaching English as a Foreign Language” are designed for Teaching English Language at primary (class I-V) and middle level (Class VI – VIII).

The PTC English course is very elementary. The emphasis is on grammar translation and basic skills of Reading and Writing. The speaking skills are limited to exchange of courtesies and very simple short sentences. **There is very little emphasis on providing communication skills.**

The CT course designed for teaching English at the middle school level (Class VI – VIII) is more extensive. Again, in methods and approaches to language teaching, the Grammar–Translation method is prominent. The Direct Method and the Structural-Situational Methods are also included. Methods for enhancing listening, speaking, reading and writing skills are described in detail. Lesson – Planning is a major unit in both PTC and CT Teaching of English as Foreign Language (TEFL) syllabuses. **The courses, however, do**

**not include any component for raising the English language proficiency of the trainee teachers.**

The B.Ed. courses designed for secondary school English language teachers do include a functional English course (B.Ed. Curriculum Wing, 1996) aimed at improving English language proficiency of the trainee teachers and also an extensive component on methodology.

**The TEFL courses at all three levels ----- PTC, CT and B.Ed. ---- are traditional. The conversational and communicative skills, so important in modern English teaching, have not been given proper emphasis. The methods of teaching and learning the language do not suggest the use of modern technology. There is no mention of the use of audio-video equipment or computers.**

## **19.2. PTEPDP –ESL Program, University of Montana, USA.**

The one semester ESL certificate program offered to Pakistan teacher educators by the University of Montana, USA, is a modern course in ESL primarily designed to meet the needs of the Pakistan clients. The major focus is communicative language teaching and learning. The course uses an intensive participatory approach which is not apparent in Pakistan courses. Information gap activities, communicative language games, role plays and drama activities, problem solving activities, listening-based activities, story telling etc make the course intensively participatory and workshop oriented. All four sections of the ESL course provide intensive participatory activities immersing the learners in the 4 language competencies. Even the teaching/learning of grammar is presented through communicative activities, in situational contexts, while in the PTC, CT, B.Ed. courses, grammar is taught as rules removed from situational context. In the US course, use of materials is emphasized in teaching language. A major and prominent aspect of the course is the use of modern audio-video and the internet.

The language support classes included in the program helped the Pakistan participants in raising their own proficiency level in the language.

The Montana and George Mason University ESL courses have many features that need to be included in the Pakistan teacher education ESL courses. The course, though of a limited period, has elements that are extremely desirable for fulfilling the needs of Pakistan teacher educators.

### **Conclusions**

- Study of the Montana and George Mason University ESL courses and discussions with the returnee ESL trainees makes it amply evident that the ESL components of the Pakistan courses need to be modernized.
- The raising of the English proficiency level of the trainees has to be a compulsory part of the courses at each level i.e. PTC, CT and B.Ed.
- The teaching/learning of conversational, communicative and functional English needs to be emphasized.

- The methodology needs to be based on total immersion in language experience. Grammar needs to be taught in situational context rather than isolated rules and principles.

### **19.3. Mathematics in PTC, CT and B.Ed. Curriculum**

The mathematics courses in PTC and CT syllabuses are focused on teaching mathematics content to the trainee teacher. Almost 80% of the syllabus includes the primary and middle school math. Less than 20% of the syllabus deals with teaching methodology, lesson planning, different methods and approaches to teaching math and making math relevant to real life problems. This is probably because the deficiency in content knowledge (mathematical skills) of the teachers has been the worry of the curriculum planners.

The B.Ed. course in teaching of mathematics deals simultaneously with content and methods. Appropriate methodologies are suggested for each content area. Problem solving and activity-based teaching-learning are emphasized. In spite of the better quality of the B.Ed. math course as compared with the PTC and CT math courses, the teaching of the course in B.Ed. colleges is mostly dogmatic. Lecture is the common mode of delivery. Discovering mathematical principles through investigation and exploration is nowhere evident.

### **19.4. PTEPDP Mathematics Program, George Mason University, USA.**

The three-month course in Teaching of Mathematics offered by the George Mason University USA is a modern course in Math-teaching designed primarily to meet the needs of the Pakistan teacher educators.

A major course component deals with teaching problem solving and higher order thinking skills; the latter are conspicuously missing in the PTC, CT and even B.Ed. courses. In the George Mason course problem solving strategies are developed through hands-on activities, and workshop-oriented experience.

Another component of the course engaged students in analysis, design and evaluation of school mathematics curricula and materials and in identifying key characteristics of school mathematics curriculum. In consequence of this study the participants are also required to design a mini-curriculum project based on key design principles. This particular component ? in-depth critical study of school mathematics curriculum ? is totally absent from the Pakistan teacher education math courses.

A third component of the math course is the review of current literature in mathematics education and engages the participants in research study and discussion of factors that impact the teaching-learning of math in schools. The end outcome of the study is to enable trainees to devise methodologies for teaching math more effectively to children of differing abilities. The component also introduces the trainees to standards-based mathematics curriculum. The Pakistan school mathematics curricula are objectives-based and do not set

standards of achievement at different levels of school education; the standards-based curriculum is just one step further.

### **Conclusions**

- Problem solving and higher thinking skills need to be included in the math teacher education courses.
- Research oriented in-depth critical study of math curricula should be a part of the math courses, particularly at CT and B.Ed. levels. This creates insight into the hierarchy of mathematical concepts suitable for introduction at different levels and suitable for students of differing abilities.
- National and international curricula and review literature should be provided to the math section of the institution libraries and a study of this literature should be made a part of the program.
- The trained returnees should be encouraged to adopt the hands-on, activity-based, workshop-oriented approach in their math course teacher education classes.

### **19.5. Science in PTC, CT and B.Ed. Curriculum**

The PTC, CT courses in science include 50% theory and methods and 50% subject matter that cover the science syllabuses for class I-V and VI-VIII respectively. Although the marks distribution for the two parts is 50% each, subject matter portion is almost three fourths of the course, and theory and methodology of teaching science is a small portion of the syllabus.

The methodology part includes the teaching of processes, concepts, principles, and stresses the role of the teacher as a guide and a facilitator. It also emphasizes experimentation, investigation and relating science to real life situations. The use of A-V aids and low cost material and evaluation in science are included. Skills in lesson planning and lesson delivery are a requirement.

Both the PTC and CT courses , as noted above, include a large amount of science subject matter which presents an opportunity to convert theory into practice ? investigation, exploration, experimentation, processes ? all approaches leading to doing science and hands-on science can be put into practice. However this does not happen in the teacher education classes nor are there any models of such practice available in the practicing schools attached to the institutions.

The B.Ed. science syllabus offers separate courses in Teaching of Elementary Science and Teaching of Secondary Science. The courses are heavy on theories of teaching-learning while comparatively low weight is given to discovery-learning, investigation, experimentation and the learning of processes. There is no practical work or research or assignments component in the syllabus. The “Teaching of Science” classes in the training colleges are mostly conducted through lectures. There is, however, an attempt at giving a modern look by including the use of media and technology (CAI, A-V etc.) in the syllabus. Both the elementary and the secondary science courses include a study of well-known

science teaching programs such as the Science Curriculum Improvement Study (SCIS), Science—a Process Approach (SPA) and Nuffield Science.

Lesson planning skills and use of technology in teaching science are prominent in the syllabus. If the theory component in B.Ed. science teaching syllabuses could be reduced and the practical work and teaching practice component could be increased, the science teacher quality would improve.

#### **19.6. PTEPDP—Science Program, Oregon State University, USA.**

One major objective of the Oregon science program for Pakistan teacher educators is: “Participants will be able to present the science content to students in challenging, clear and compelling ways and integrate technology appropriately”.

The emphasis of the whole course in teaching science is on inquiry and discovery of science concepts and principles through hands-on investigation and exploration by the learners. Another important aspect of the course is on developing skills for integrating information technology to facilitate learning. The latter aspect, although present in the Pakistan teacher education curricula, is totally neglected particularly because the technology ? audio-video equipment, computers ? was not available in the institutions. Now since the equipment has been made available to most institutions, it is expected that the returnee science educators would be able to start and disseminate the integration of technology with science teaching.

The development of instructional materials, laboratory organization and demonstrations in science education is another major component of the Oregon course.

A third very much needed part of the course is the improvement of participants’ skills in collaborative learning, constructivist teaching practices and use of technology in teaching, and scoring guidelines for workshop assessment. The participants will need these skills in working with adult learners in the workshops they will present in Pakistan. This aspect regarding leadership skills in workshop organization, management and assessment is totally absent from Pakistan teacher education courses. Action research as a measure of training effectiveness is another very useful aspect of the course. If, on their return, the trained teacher educators use their action research skills, they will be able to assess the effectiveness of their own teaching and develop fresh strategies to improve the quality of their product ? the trained teacher.

#### **Key Points**

- The inquiry-discovery approach to science teaching is strongly advocated in Pakistan curricula, particularly at the B.Ed. level. The teacher educators, however, do not practice the approach. It is expected that the returnees would be able to practice the approaches with enthusiasm and infuse new life into the teaching of science.

- Integrating information technology with science must be supported, now that necessary equipment is available in majority institutions. It also needs to be ensured that the integration approach is practiced by the trained teachers in elementary and secondary classrooms as well.
- The science labs in majority institutions are in disuse. The Oregon trainees have hands-on experience in laboratory organization and teaching materials development. The labs must now be the hub of science education activities and science teacher preparation.
- The workshops for science teachers and science teacher educators conducted by the Oregon returnees are expected to introduce collaborative learning and constructivist teaching practices and use workshop assessment techniques learnt at Oregon to assess the success of their workshops.
- The action research skills learnt at the Oregon course can now be used as feedback for assessing the effectiveness and quality level of the training the science educators provide to their trainees. The feedback mechanism, so important for developing fresh strategies for improving science teacher education and quality of science teachers and teaching, has been totally absent in the whole teacher education system. The action research skills, when applied by teacher educators, will fulfill the need.

The study interviewed 25 trainees who had completed their training in the US. All returnees were found to be enthusiastic about their training. The ESL and Science trainees referred to their US courses as very relevant. They were looking forward to implementing their “action plans” which they designed under the guidance of their US tutors. In their own view their training needs were fulfilled to a large extent.

Most of them however expressed some concerns about implementation of their action-plans and utilization of newly acquired skills because of (a) the lack of facilities in equipment (b) the pressure for completing the courses (c) non-cooperation of higher authorities (d) budget (for equipment and materials) (e) convincing education department (f) non-cooperation of colleagues (g) overcrowded classrooms.

Those who went for training in Administration in US had a preconceived notion of “Administration” but learned from observation of activity-based goal-oriented classrooms and organization of teaching-learning.

## **20.0. Utilization of the Newly Acquired Skills of US Trainees**

Many suggestions came from the respondents regarding the ways of effective utilization of the US trainees. Some of the strategies suggested by the Directors, Principals and the trainees themselves were:

- a) Trainees to be supported in improving teacher education in their own institutions.
- b) Trainees form regional/provincial groups and train master trainers to start a cascade process.

- c) Trainees to be linked into a National Corps of ToTs (Trainers of Trainers) and train Corps of Master Trainers (MTs). Each Corp of MTS would then go about conducting trainings of Teacher Educators at provincial/district levels. The whole country would benefit from this strategy.

The study of action plans however revealed that some of action plans were targeted at clients outside the training institutions. One of the action plans, for example, details out a strategy for undertaking adult education. During interviews many expressed the desire to provide in-service training to school teachers, which will not be possible unless the BoCs, the PITEs / DSD and the Government Departments of Education collaborate to fund and support such special in-service training programs conducted by the returnee teacher-educators and specially aimed at disseminating their U.S. acquired training skills.

Since the PTEPDP's foreign training program goal is to improve the quality of teacher education, the priority for dissemination of the U.S. acquired skills would best be as follows:

1. First target should be the trainee teachers attending the PTC, CT, B.Ed courses. The new approaches should be practiced by the teacher educators in their own classrooms so that their graduate turnout of the year is already equipped with the modern skills of teaching.
2. Second priority should be the orientation of colleague teacher educators of their own institutions. The Principals would need to create time for such in-house skill development activity, and support and facilitate the process. This would lead to a positive change and improvement in training strategies in the whole institution.
3. Third priority should be lab school/practice school teachers. They should be intensively trained and supported in learning and adopting the activity-based child-centered approach to teaching. Their classrooms should present models of activity-based teaching-learning so that the student-teachers observing their lessons have the opportunity to observe and study activity-based child-centered teaching in actual practice.
4. The fourth in order of priority should be the fellow teacher educators in the regional training institutions. A corps of U.S. returnees should conduct in-service courses for teacher educators in the province during the summer vacations.

## **21.0. Recommendations**

### **Strengthen linkages between teacher education institutions**

There is a need to establish linkages between the provincial teacher education institutions particularly between the BoCs, PITEs and Universities. By establishing interface between these institutes, especially at the provincial level, the overlapping of functions and duplication of work and effort can be avoided. There is also the need for closer academic collaboration between these institutions to improve both pre-service and in-service teacher education. Strengthen and support PITEs as apex institutions for innovation and research in teacher education



**Set up a separate cadre of teacher education**

The diversity in structure of teacher education faculty also needs to be made uniform and separate cadre of teacher educators needs to be maintained and protected. Ensure teacher educators are retained by avoiding unnecessary transfers.

**Duration of courses**

The duration of teacher education courses is short. The duration of certificate and degree courses need to be increased so that curricula are implemented in true spirit and curricular objectives are fully met. A principal from Hyderabad teacher Education College said “Our curriculum needs serious revision as present curriculum is obsolete and it does not eventually fulfill a child’s need. We need curriculum based on modern concepts of learning and teaching and on research and reflection. Moreover, the curriculum should be relevant to our (contextual) needs.” Improve the physical and resource environment of the classrooms that encourage group work and activity based learning.

**Introduction of institutional performance evaluation and staff appraisal**

Institutional Performance Evaluation and Staff Appraisal system needs to be introduced at the institutional level to ensure regular monitoring of the activities during the academic year and the assessment of the institution’s performance against institutional objectives and budgetary allocations. Moreover, a comprehensive staff appraisal system needs to be introduced which ensures the participation of all the relevant staff. Feedback Mechanisms and Quality Control measures need to be devised. Technical Panel of Teacher Education existing at the national level should be transformed into a high powered body and assigned the task related to quality control. A system of monitoring and assessment needs to be introduced in the training institutions so that: All curricular objectives are fulfilled; a variety of modern teaching techniques are incorporated and practiced in teacher education. Teaching practice is properly monitored and guidance is available to the trainees. Each trainee’s performance is regularly and cumulatively assessed.

**Provision of quality text books and resource material**

There is an acute shortage of textbooks and reading and teaching learning references and supplementary material. National level educationists need to be involved in producing course relevant quality textbooks and reference material. There are no regular budgetary allocations for physical facilities such as labs, libraries, teaching-learning material and IT facilities. Such facilities need regular budgetary allocations. Labs and Libraries need to be modernized. More time should be devoted to Practicum and learning assignments in all subjects, so that labs and library study become a necessary part of the training. The principal GECE from Sindh voiced her concern, “We do not have any budget for the library that’s why we can’t update it. We don’t have budget to subscribe for journals. In fact no purchasing has taken place in the last 20 years for the library. Moreover, we do not have lab equipment, specimens and apparatus for conducting practical sessions. We have a total of five computers, and none of them are used for teaching/learning purposes.” Another Principal from GECEW, Sindh said, “We don’t have permission to buy books. We are given books which are outdated. The bureau purchased books for us in 1981.”

### **Improvement of educational institutions infrastructure**

During the visits it was observed that, with a few exceptions, most of the training colleges are in dismal condition. A concerted effort on the part of the government is required to improve the physical environment of the training colleges. There should be budgetary allocations for physical facilities such as lab, libraries, teaching and learning material and IT facilities.

### **Relevance of training courses and their follow- up and monitoring**

Local and foreign training of teacher educators should be relevant to their needs. A follow up strategy should be put in place to ensure the training acquired is being practiced. The US returned trainers under AED program had some concerns that they voiced: “We have asked for funding to initiate activities based on the replication of our learning in the US. The implementation implies certain challenges such as our curriculum is not activity based and incorporation of activities will take time. Moreover, we cannot implement our learning as we do not have the authority, human resources, infra-structural support and funding to do so. PITE has equipment required for the capacity building of teachers of special education but the special education unit has not been established.”

### **Revision of admission policy**

The interview data highlights that enrolment exceeds the capacity to accommodate students in the training colleges. This results in a decline of the quality of training. Admission policy needs to be revised to ensure that over enrolment does not mar the quality of training.

## **22.0. Conclusion**

The first reality that we were confronted with during our research and field work for this study was that the quality of both pre as well as in-service teacher training in the country is far from satisfactory. Unless improved, quality education both at the primary and secondary level will be a far cry. Teacher education needs concerted and focused efforts.

There is diversity in the organization of teacher education. New institutions like PITEs, DSD and the University of Education (in Punjab), the DCTE (in NWFP) have evolved in the last decade. However, there is an overlap between the functions of the newly created institutions, which are further complicated due to lack of interaction among these institutions for sharing and supporting policy as well as academic initiatives.

The PTC and CT level courses still follow the 1995 curricula. At B.Ed. level the Universities have not yet implemented the 1996 curriculum. The time duration of both certificate and degree courses is too short and lengthy content and emphasis on theory rather than practicum encourages rote learning. Such a teaching process does not leave room for a teaching/learning environment and attitudes that build competencies among the students and provide avenues for research and teachers’ professional development. Another draw back in the system is that it is devoid of Institutional Performance Evaluation and Staff Appraisal System. With the absence of such an assessment system the

institutions and teachers remain ignorant of their needs, strengths and weaknesses, which ultimately affect the quality of education.

Although most of the training institutions have the appropriate rooms allocated for facilities such as labs and libraries, teaching-learning materials, education resource materials and IT and science lab facilities are not properly equipped to engage the teachers and students in a true teaching/learning environment that brings quality to education. Also there is great dearth of print material used for teaching.

AED has trained a pool of teacher educators from training institutions across the country in the US in the subjects of Math, Science and ESL. These trainers are playing a key role in improving both the standard and quality of education in their colleges/institutions and in the lab schools. They are also playing a key role in bringing innovative pedagogical methods in the classroom to enrich and increase the learning abilities of the students. They have contributed to providing technical support as master trainers to other teacher education training projects organized by public and private institutions and organizations.

By August 2005, AED will have trained about 175 teacher educators from the US. This is a national resource, a resource that gives Pakistan quite a substantial number of teacher educators for the public sector. Provinces and teacher training institutions should harness this group for quality teacher training both pre- service and in-service.

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